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September 7, 2004

BY ELECTRONIC FILING

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

Re: Ex Parte Notice
Carrier Current Systems, Including Broadband over Power Line Systems;
Amendment of Part 15 Regarding New Requirements and Measurement
Guidelines for Access Broadband over Power Line Systems (ET Docket
No. 04-37)

Dear Ms. Dortch:

Pursuant to 1.1206(b) of the Commission's Rules, this is to notify you that Tom Tormey and Vijay Dhingra of Echelon Corp. ("Echelon") and Glenn B. Manishin and Joseph Price, counsel to Echelon, met on September 2, 2004, with Karen E. Rackely, Alan J. Scrimme, Alan Stillwell and Anh Wride, of the Office of Engineering and Technology, to discuss the issues in the above-referenced proceeding. The parties discussed the issues previously raised by Echelon in its written Comments and Reply Comments in this proceeding, including the definition of Access BPL. Also present and supporting the discussion of Echelon's proposed definition of Access BPL was Brett Kilbourne, Director of Regulatory Services & Associate Counsel, United PowerLine Counsel. The attached document, "FCC Access BPL Presentation," was distributed and discussed at the meeting.

KELLEY DRYE & WARREN LLP

Marlene H. Dortch
September 7, 2004
Page Two

Pursuant to the Commission's Rules, this notice is being filed electronically through the Commission's Electronic Comment Filing System. If there are any questions concerning this notice, please let me know.

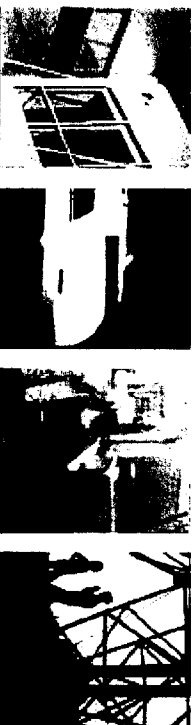
Sincerely,

A handwritten signature in black ink, appearing to read "Manishin", written in a cursive style.

Glenn B. Manishin
W. Joseph Price

Enclosure

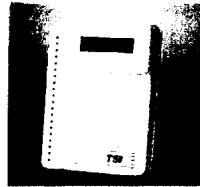
cc: Karen E. Rackley, OET
Alan Scrimme, OET
Alan Stillwell, OET
Anh Wride, OET



FCC Access BPL Presentation 2 September 2004

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Who is Echelon?



- **Echelon is a networking company that makes an open, standards-based infrastructure called LonWorks**
 - LonWorks enables everyday devices to be made “smart” and to communicate with one another and the Internet
- **Echelon is the leader in networking everyday devices**
 - Approximately 50,000,000 LonWorks enabled processors shipped, thousands of OEMs
 - Authorized network integrators, developers, and educational partners worldwide

Echelon makes tools for building end-to-end solutions...



Panoramix™

Network Management
and Enterprise Software



Development Tools



Power Line & Twisted Pair
Transceivers, Controllers, NICs

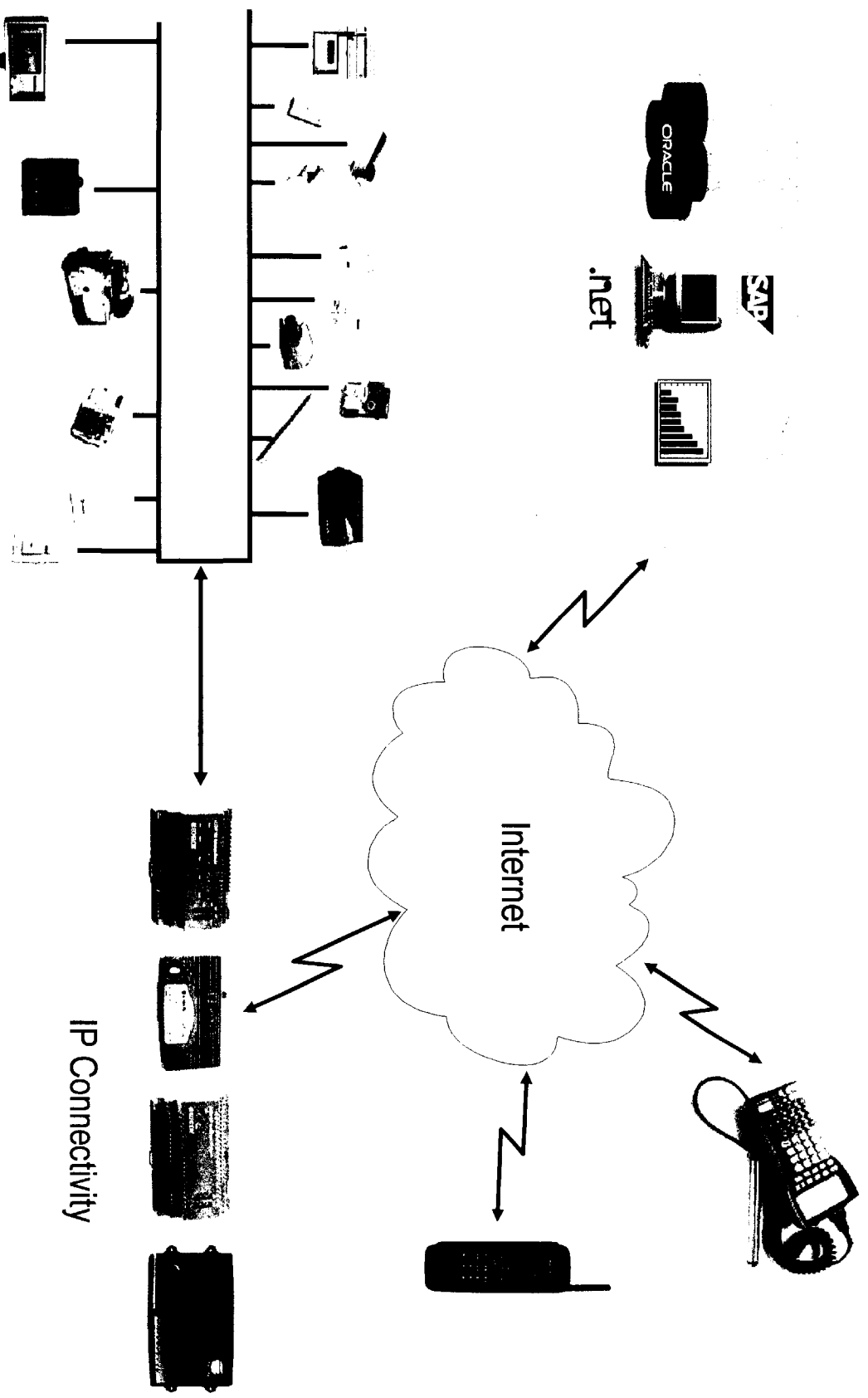


Routers, Internet Servers

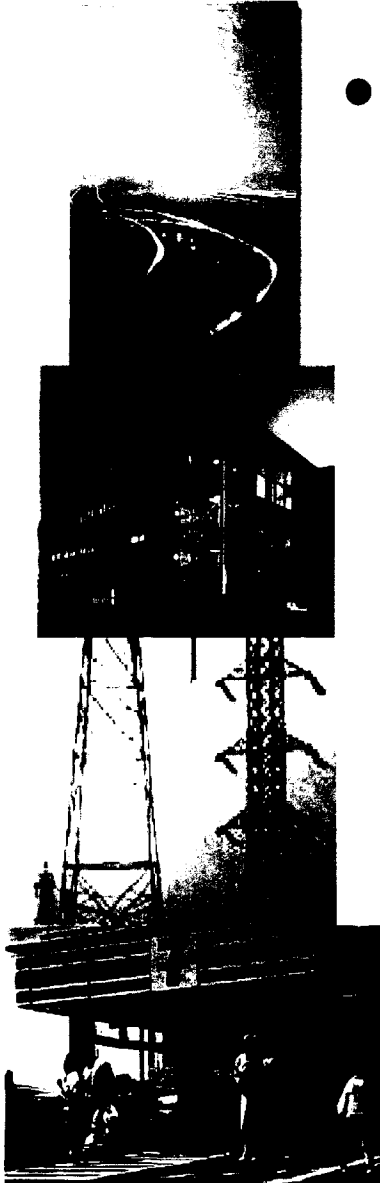


ECHELON™

...from the smallest systems to networks that span the globe.



Echelon & power line communications



- **A pioneer in PL Communications for over 12 years**

- Millions of devices in home automation, utility, commercial building, transportation and industrial applications worldwide

Holder of 38 U.S. patents in PL technology

Only company with expertise in Spread Spectrum and Narrow Band transceiver technologies

- Dual Frequency Narrow Band technology has replaced Spread Spectrum technology – Dual Frequency Narrow Band offers significantly more robust signaling
- Echelon focuses on PL solutions optimized for control applications (not for data networking applications)

4th Generation Narrowband Power Line Transceiver

- **ANSI 709.2 power line transceiver**



- **Reliable power line technology**

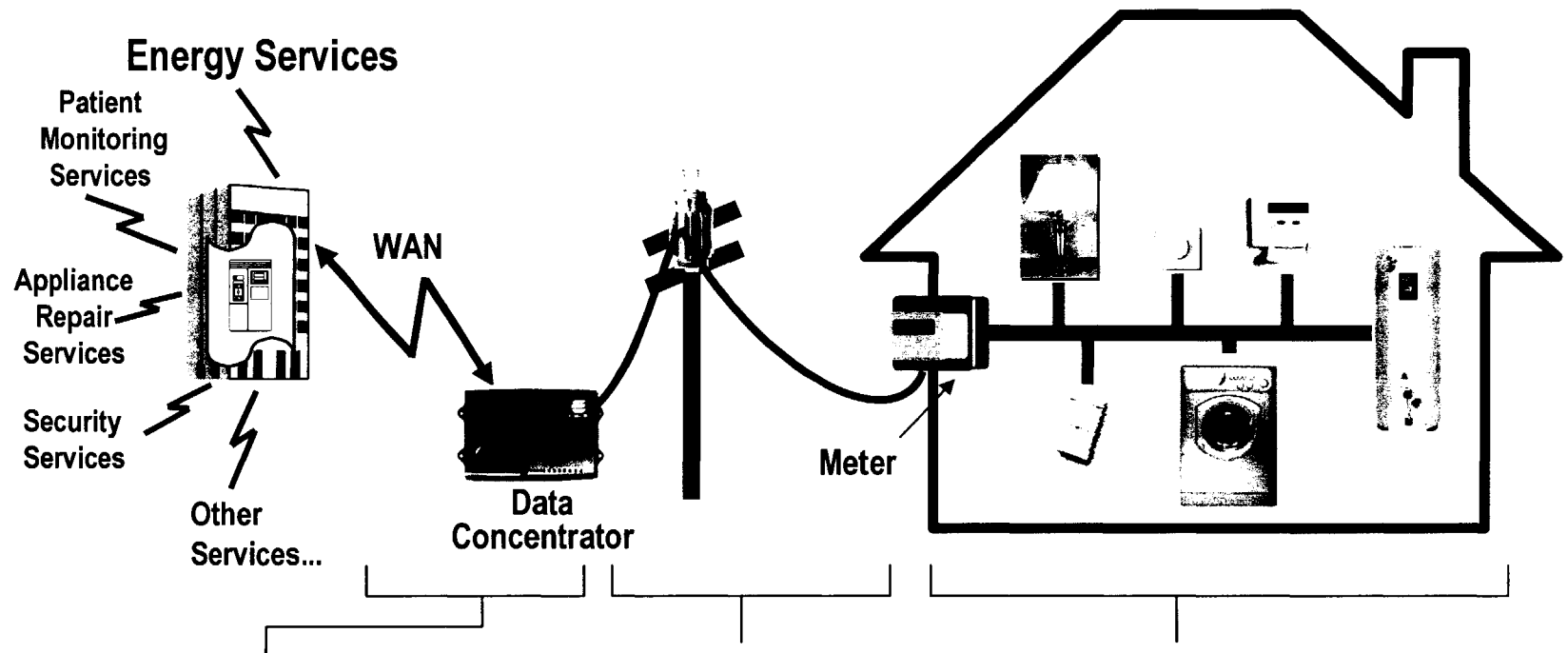
- Unique dual carrier operation
- 5kbs data rate, PSK modulation
- Patented low-overhead error correction
- DSP based noise cancellation and distortion correction
- High power amplifier

- **Worldwide power line operation**

- Complies with FCC, Industry Canada, Japan MPT, and European CENELEC EN 50065 regulations



Utility-managed NES[®] System Architecture



- **Wide Area Network**

Telephone Line
Paging or cell radio
Network management service

- **Utility Network**

Meters
Data concentrators
A-band operation

- **In-Home Network**

White goods
Thermostats, switches
Lighting, HVAC
Security system
C-band operation

Motorola

**MOTOROLA**

Prepaid Energy Services

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Revenue Management System

**Smart Card Energy
Purchase**



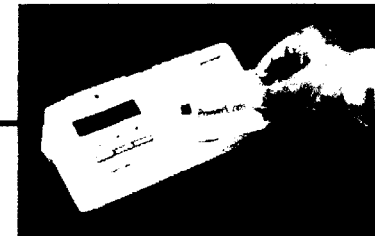
**Improved utility management
eliminates manual meter reading, no
high risk debt**



**PLT-22 Power Line
Communication**

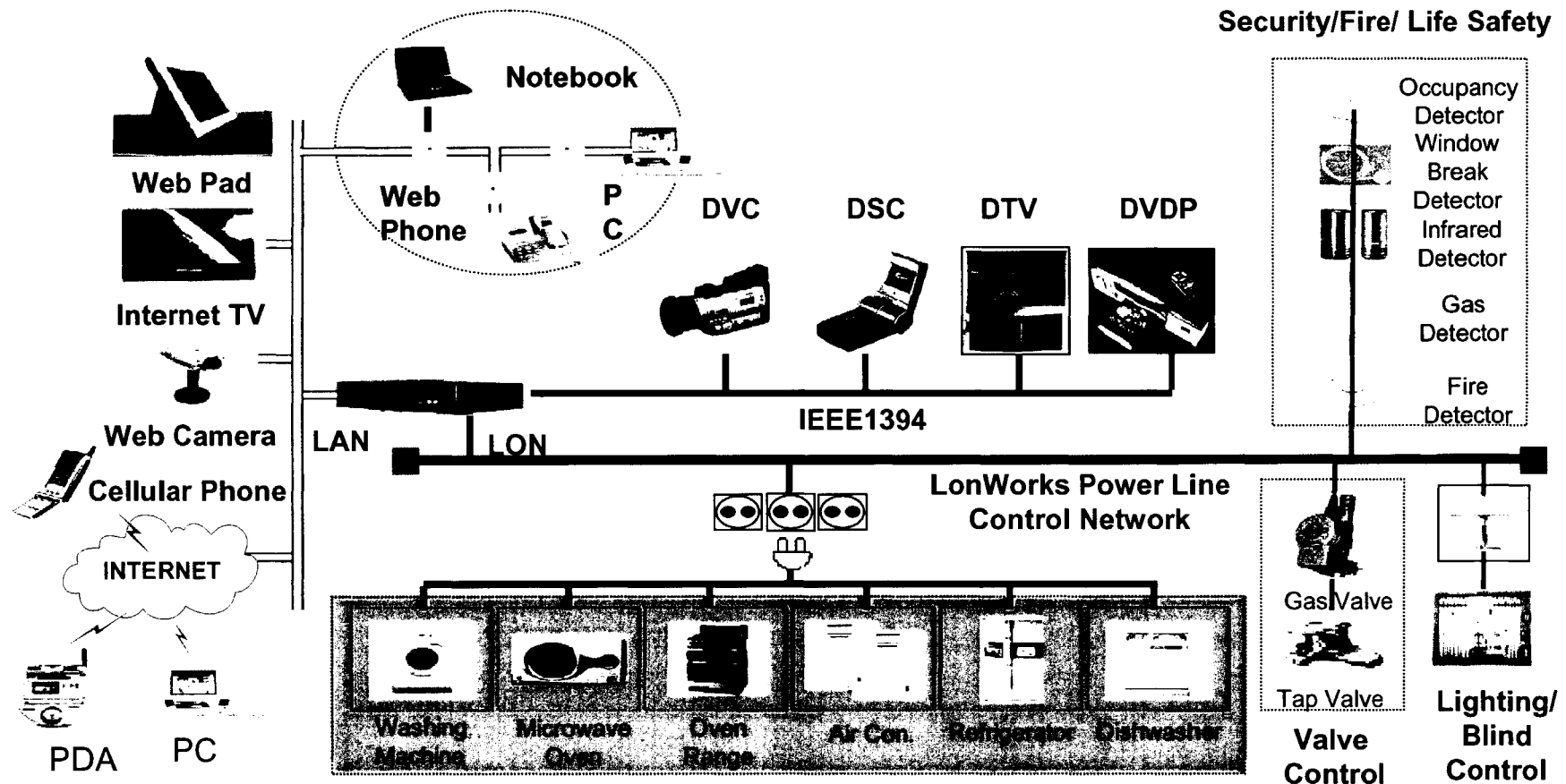
Temporary residence

College dormitory
Seasonal residence
Time share rental
Apartment complex



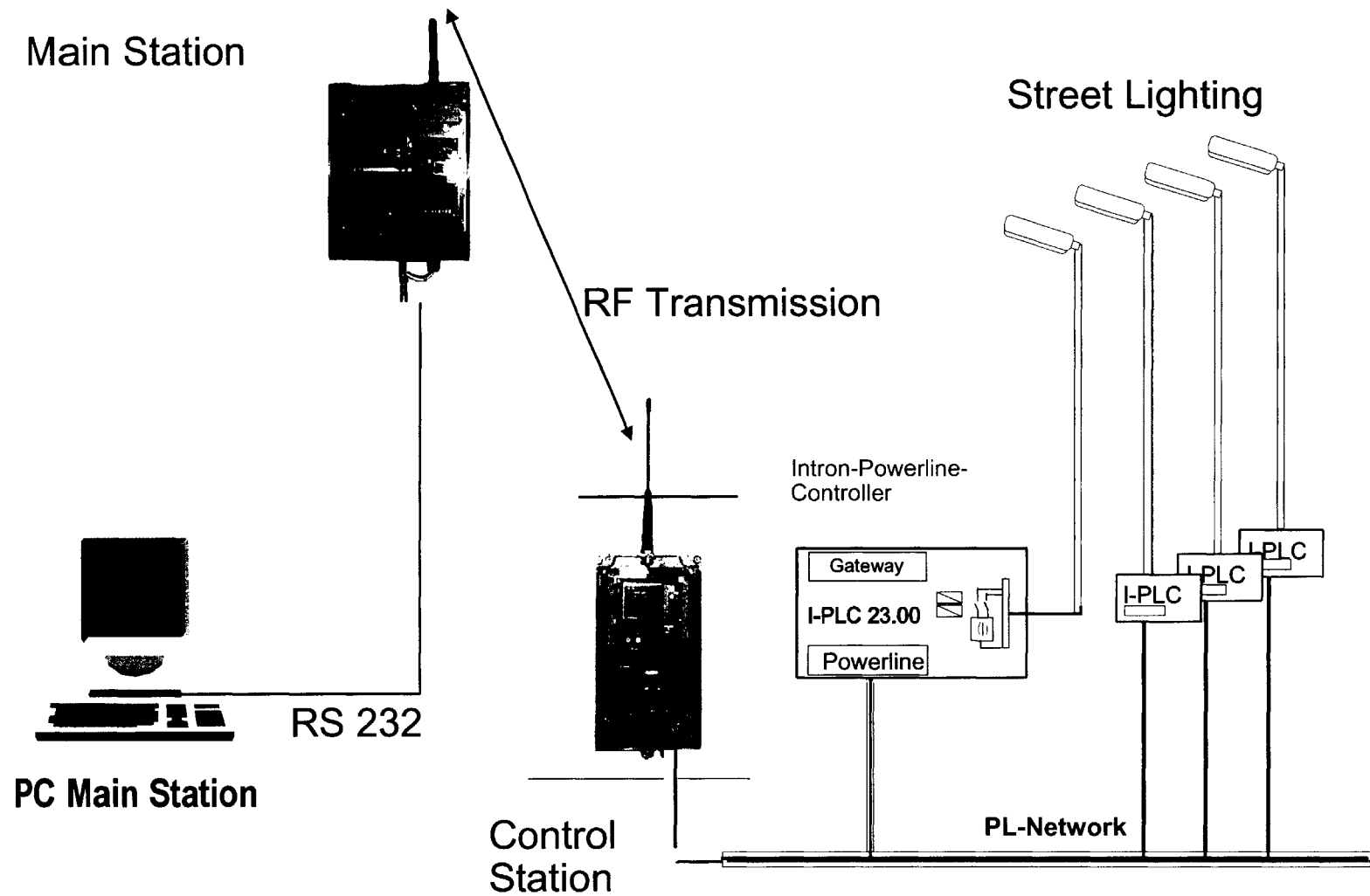
**Consumer display shows power
remaining on card, consumption history,
when to replenish card**

Intelligent home architecture



Intron Engineering

Street lighting control via power line



Acrolon Technologies Winery Controls

- **Typical winery contains 15 fermentation tanks, 400 meters of cabling, 30 junction boxes, and 240 wire terminations.**

Uses Echelon's PLT-22 Power Line Transceiver to communicate with tank controllers

Signaling uses the same power mains already wired for the tank variable frequency motor drives

Customers save hundreds of installation dollars per tank

Acacia Vineyard
 Abeja Winery
 Canoe Ridge Vineyard
 Domain Carneros
 Duckhorn Wine Company
 Dynamite Vineyards
 Etude Wines
 Beringer Blass Wine Estates
 Gainey Vineyard
 J. Lohr
 Keller Estate
 Kenwood Vineyards
 Korbel Champagne Cellars
 Monterey Wine Company
 Mountain Vineyard
 Ravenswood
 Raymond
 Robert Mondavi Winery
 Rodney Strong
 Rutherford Hill
 Stags' Leap Winery
 Vineyard 29

"I can't imagine living without TankNET now that we have it!"

Gary D. McDermott, CellarMaster - Robert Mondavi Winery, Oakville

That's what customers large and small are saying about our innovative temperature control and fermentation information system. TankNET is quite literally giving them more immediate access to reliable information than they ever imagined possible. And since the system is web-enabled, this information is available on any browser, any time, and anywhere. In real time.

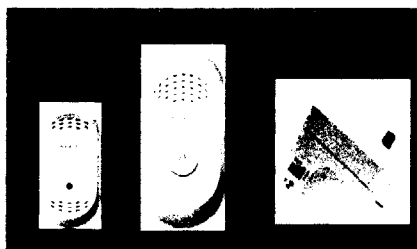
Site visit capabilities available for the Winemaker's Database.

707.938.1300 www.acrolon.com

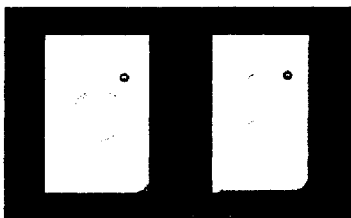
TANKNET
TEMPERATURE CONTROL AND FERMENTATION INFORMATION SYSTEM

ACROLON TECHNOLOGIES, INC.

© 2001 New Stuff Works



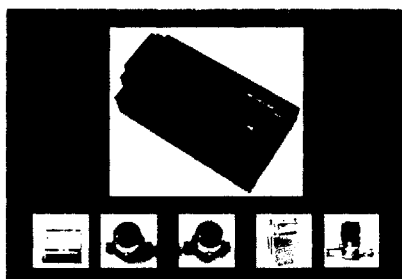
Gas detect and valve controller



Switches



Blocking Filter



meter reading module



AC outlet



Embedded type module



- General IO module
- Ethernet/EIA709.2 gateway...

Why is Echelon Here Today?

Proposed Part 15 Rule Change

2. Section 15.3 is proposed to be amended by adding paragraph (ff) to read as follows:

§15.3 Definitions.

(f) Access BPL systems shall incorporate adaptive interference mitigation techniques such as dynamic or remote reduction in power and adjustment in operating frequencies, in order for Access BPL installations to avoid site-specific, localized use of the same spectrum by licensed services. Access BPL systems shall incorporate a shut-down feature to deactivate units found to cause harmful interference.

(ff) Access Broadband over power line (Access BPL): A carrier current system that transmits radio frequency energy by conduction over electric power lines owned, operated, or controlled by an electric service provider. The electric power lines may be aerial (overhead) or underground.

- **The proposed definition of Access BPL encompasses all carrier current systems, including broadly deployed existing low-speed, low-frequency carrier current systems (X-10, CEBus, LonWorks) that today coexist under current Part 15 rules.**

- **Adding adaptive mitigation techniques to these devices is both unnecessary and would add so much cost as to force these devices off the market.**

Remedy: Revise §15.3 (FF)

Redefine Access BPL to exclude low-power, low-speed carrier current systems, as follows:

(ff) Access Broadband over power line (Access BPL): A carrier current system, with an operating frequency of >1705 kHz, that transmits radio frequency energy by conduction over electric power lines owned, operated, or controlled by an electric service provider. The electric power lines may be aerial (overhead) or underground.

(new language underscored).